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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,023	07/08/2003	Yusuke Fukumoto	43888-260	9495

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EXAMINER	
WEINER, LAURA S	
ART UNIT	**PAPER NUMBER**
1745	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/614,023	FUKUMOTO ET AL.	
	Examiner	Art Unit	
	Laura S. Weiner	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10-24-05 have been fully considered but they are not persuasive.

The rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. (JP 2000-195518, translation) in view of Kubota et al. (JP 11-263612) remains because Kubota et al. teaches a method of modifying spherical particles of natural graphite where the sphericity of the particle is greater than 0.86 and teaches that this gives good properties. Applicant argues that Kubota et al. teaches a particle density adjusted to 1.4 g/cc (1.4 g/cm3) and does not suggest that the carbon density of the negative electrode should be 1.6 g/cm3 or greater. The primary reference, Sakurai et al. teaches that the density should be 1.6 g/cm3. Sakurai et al. teaches the claimed invention teaching a material mixture layer comprising a carbonaceous material comprising a spherical natural graphite and a graphitized carbon fiber in which the material mixture layer has a carbon density of not less than 1.6 g/cm3, teaching that the density is 1.6 g/cm3 and Kubota et al. is the secondary reference teaching why the spherical particles taught in Sakurai et al. would be beneficial if has a mean particle circularity of not less than 0.86. The rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Kubota et al. and further in view of Hosoya remains because of the rejection stated below and Applicant did not argue this rejection.

The rejection of claim 1 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sakurai et al. (JP 2000-195518, translation) has been withdrawn.

Claim Rejections - 35 USC § 103

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. (JP 2000-195518, translation) in view of Kubota et al. (JP 11-263612).

Sakurai et al. teaches a nonaqueous electrolyte secondary battery comprising a positive electrode, a nonaqueous electrolyte and a negative electrode comprising a carbon material formed of a mixture of a carbon fiber material (A) and a carbonaceous material (B). Sakurai et al. teaches on page 7 of the translation that Examples 12-13 teaches 10% of natural graphite and 90% of carbon fiber having1.6 g/cm3. Sakurai et al. teaches on page 3 of translation that the carbonaceous ingredient is carbon powder having a mean particle diameter of 5-30 um and d002 is 0.3354-0.370 nm. Sakurai et al. teaches on page 2 of the translation that the carbon fiber ingredient has an average fiber length of 10-100 um and aspect ratios (a fiber length/diameter of fiber) of 2-10.

Sakurai et al. discloses the claimed invention as explained above except for specifically teaching that natural graphite carbonaceous material has a mean particle circularity of not less than 0.86.

Kubota et al. teaches a method of modifying spherical particles of natural graphite where the sphericity of the particle is greater than 0.86. Kubota et al. teaches that this gives good properties.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method taught by Kubota et al. to form a graphite having a sphericity of the particles be greater than 0.86 because Kubota et al. teaches that this gives good properties.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al. in view of Kubota et al. and further in view of Hosoya.

Sakurai et al. in view of Kubota discloses the claimed invention as explained above except for specifically teaching that the positive electrode comprising a lithium containing composite oxide of the formula Lia(Co1-x-yMgxMy)bOc.

Hosoya teaches a nonaqueous electrolyte cell comprising a negative electrode comprising a carbonaceous material such as graphite, carbon fibers, etc. and a positive electrode comprising the formula LiCoxAyBzO2 where A can be Al, Mn, etc. and B can be Mg *[claimed invention:* $LiCo_{(1-.05-0.05=0.9)}[Al\ or\ Mn]_{0.05}Mg_{0.05}O_2$*].* Hosoya teaches that the cell has improved cyclic characteristics at elevated temperatures when the cell contains the positive electrode material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lithium containing composite oxide taught by Hosoya in the battery taught by Sakurai et al. because Hosoya teaches that the cell has improved cyclic characteristics at elevated temperatures when the cell contains the positive electrode material and contains a carbonaceous negative electrode.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura S Weiner
Primary Examiner
Art Unit 1745

December 7, 2005